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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,596	03/30/2001	Carl D. Burch	10004625-1	6826

7590 01/29/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

PAN, DANIEL H

ART UNIT	PAPER NUMBER
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2183

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/823,596

Applicant(s)

BURCH, CARL D.

Examiner

Art Unit

-- The MAILING DATE of this communication appears on th cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-11 and 15-17 is/are rejected.
- 7) ☐ Claim(s) 5-7, 12-14 and 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

1. Claims 1-20 are presented for examination.

The abstract of the disclosure is objected to because it should not exceed 150 words. Correction is required. See MPEP § 608.01(b).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 8-11, 15-17 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Panwar et al. (5,958,047).

As to claim 1, Panwar disclosed a system with multiple processing stages (e.g. see the different processing stages in fig.2, see also col.8, lines 4-38 for detailed of the pipelines) comprising at least :

a) determining if an instruction meets criteria for early retirement (see the determination of instruction to be retired based on the predicated branches resolved in col.10, lines 14-44, it is "early" because it is determined at scheduling), terminating the instruction (see the flush of the instruction in col.10, lines 24-31);
updating the state of the system to reflect the instruction (see the transfer of the result data to the architectural register and file in col.10, lines 24-33, see also the col.7, lines 66-67, col.8, lines 1-3).

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3. The claimed term "early retirement" is interpreted by examiner as a general type of instruction retirement at any given stage. The claimed term "early retirement" as taught by applicant is directed to the instructions completing their functions without necessarily completing their full pipeline cycle or updating the architectural register state (see applicant's specification page 9). However, this feature is not being reflected in the claim. Nowhere does claim recite not completing their full pipeline cycle or updating the architectural register state, or the like. Applicant is reminded that unclaimed feature cannot be used to distinguish from the prior art (see CCPA In re Lunderberg & Zuschlag, 113 USPQ 530, 534 (1957)). And for this reason, the broad claim language is anticipated by Panwar.

4. AS to claims 2, 9, 16, Panwar proceeded the instruction to the next stage (see the scheduling and dispatch of instructions in col.7, lines 39-53)

As to claims 3,10, Panwar also included fetching, dispatching, sorting (scheduling) executing, queuing (holding), retiring (e.g. see the different pipelines for scheduling, dispatch, and retiring in col.7, lines 39-67, col.8, lines 1-47).

As to claims 4,11, 17, Panwar also identified the retire instruction (e.g. see col.10, lines 36-40).

5. Claims 5, 12, 18, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art of record teaches the specific instructions for the early retirement.

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6. Claims 6, 13, 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art of record teaches the requirement of not changing the architectural state of the system processing the instruction.

7. Claims 7, 14, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art of record teaches the requirement of not changing the behavior of a program running the instruction.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Vidwans et al. (5,740,393) is cited for the background teaching of the retirement circuit for updating the architectural register (e.g. see 7, lines 54-61, col.8, lines 7-19)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696.

The examiner can normally be reached on M-F from 8:00 AM to 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712. The fax phone numbers for the organization where this application or proceeding is assigned is are:

- a) before final 703 746 7239;
- b) after final 703 746 7238;
- c) Customer Service 703 746 7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 3900. USPTO Web site can be reached at <http://www.uspto.gov> for general inquiry.

DANIEL H. PAN
PRIMARY EXAMINER
GROUP

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